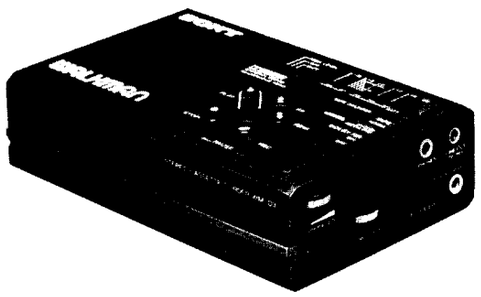
SONY

STEREO CASSETTE-CORDER

WM-D3

OPERATING INSTRUCTIONS

Please read this operating manual thoroughly before operating this high quality electronic unit, so that you can obtain the maximum enjoyment from it.
This manual should be retained for future reference and used to answer your operational questions as they arise.



WALKMAN PROFESSIONAL

WALKMAN is a trademark of Sony Corporation.

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OWNER'S RECORD

The model number is located on the left side and the serial number is located at the rear or the cassette holder.
Record the serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. WM-D3 Serial No. _____

For the customers in U.S.A.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

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FEATURES

- Dolby * B-type system reduces tape hiss noise.
- Disc drive capstan servo system assures stable tape transport, reducing wow and flutter.
- Tape selector offers two positions.
- 5-LED peak/battery indicator shows both the peak level and the battery strength.
- Plug-in power type microphone jack can supply power to the supplied microphone.
- Amorphous head for recording/playback provides a wider dynamic range.
- Stereo minijacks can easily be connected to audio components.

* "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

PRECAUTIONS

- Do not open the casing. Refer servicing to qualified personnel only.
- Operate the unit only on 3 V dc.
  For ac operation, use the ac power adaptor recommended for this unit. Do not use any other ac power adaptor.
  For car battery operation, use the car battery cord recommended for this unit. Do not use any other car battery cord.
- Disconnect the ac power adaptor from the wall outlet when the unit is not to be used for an extended period of time.
- Do not place the unit in a location near heat sources such as radiators or airducts, or in a place subject to direct sunlight, excessive dust or sand, moisture, rain, mechanical vibration, or shock.
- Should any liquid or solid object fall into the unit, remove the batteries and disconnect the ac power adaptor, and have the unit checked by qualified personnel before operating it any further.
- The ● button cannot be depressed in the following cases. Never depress the button forcibly.
  • No cassette in the cassette holder.
  • The cassette inserted has had the tabs removed.
- If the unit has not been used for a long time, set it in playback mode and warm it up for a few minutes before inserting a cassette.

About headphones

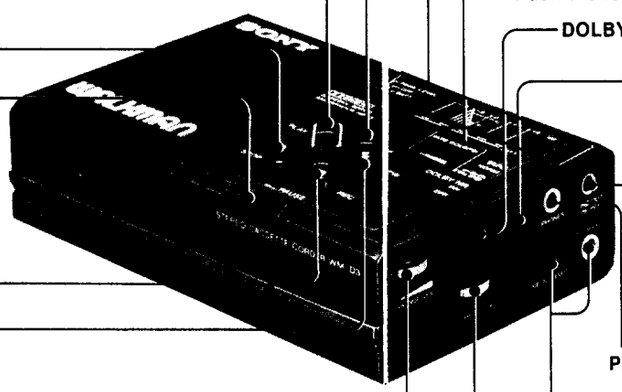
- Avoid playing the unit at so loud a volume that extended play might affect your hearing.
- **At a high volume outside sounds may become inaudible. Avoid listening to the unit in situations where hearing must not be impaired, for example, while driving or cycling.**
- As the supplied headphones are of open-air design, sounds go out through the headphones. Remember not to disturb those close to you.

Note on cassettes longer than 90 minutes

The use of cassettes longer than 90 minutes is not recommended except for long continuous recording or playback. When using this cassette tape, do not switch the tape operation mode frequently. This results in the tape becoming entangled because this very thin tape can easily be stretched.

If you have any question or problem concerning your unit that is not covered in this manual, please consult the nearest Sony Service Station authorized to service tape recorders (in the USA) or the nearest Sony of Canada Factory Service Station (in Canada).

PARTS IDENTIFICATION



◀◀ **FF (fast forward) button**

◀ **PLAY (playback) button**

■ **STOP button**

PAUSE knob
Slide it in the direction of the arrow, and the tape stops momentarily. To restart, slide it back to the original position.

● **REC (record) button**

▶▶ **REW (rewind) button**

Peak level/battery meter and indication selector
PEAK LEVEL: shows the recording level.
BATT: shows the battery condition
OFF: no indication

Tape counter and reset button
Use the counter to index the tape contents.
Push the reset button to set the counter to 000.

DOLBY NR selector

TAPE selector
NORM: TYPE I (normal) tape
CrO_2/METAL (PB) (playback): When playing back and recording with TYPE II (CrO_2) tape, or when playing back with TYPE IV (metal) tape.

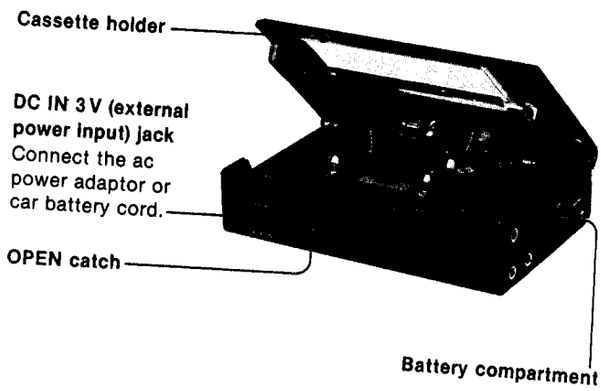
LINE OUT (PB ONLY) (playback only) jack

PHONES (headphones) jack

LINE IN/MIC (line input/microphone) jack and selector

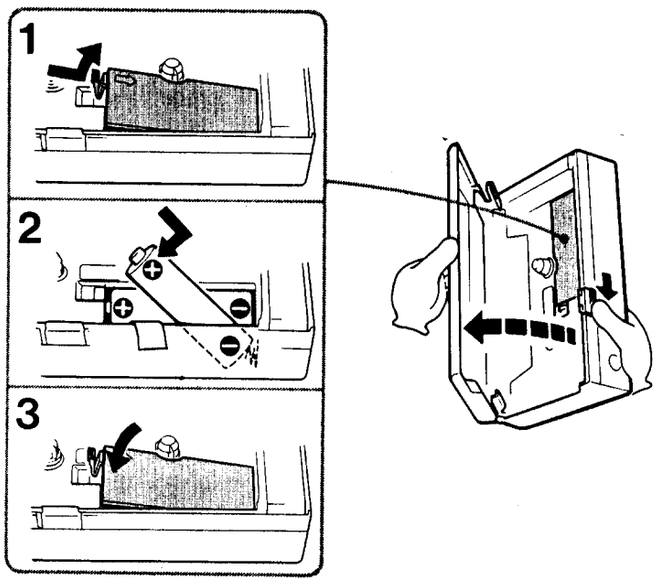
REC LEVEL (recording level) control

PHONE VOL (headphones volume) control


Cassette holder
DC IN 3 V (external power input) jack
Connect the ac power adaptor or car battery cord.
OPEN catch
Battery compartment

BATTERY INSTALLATION

Insert two size AA batteries (IEC designation R6) with correct polarity.



Battery replacement

Set the PEAK LEVEL/BATT selector to the BATT position and press the tape transport buttons. The indicators will glow. As the batteries become weak, the number of glowing indicators decreases. When only two indicators glow, replace both batteries with new ones.

For information about battery life and other power sources, see "Specifications" on page 23.

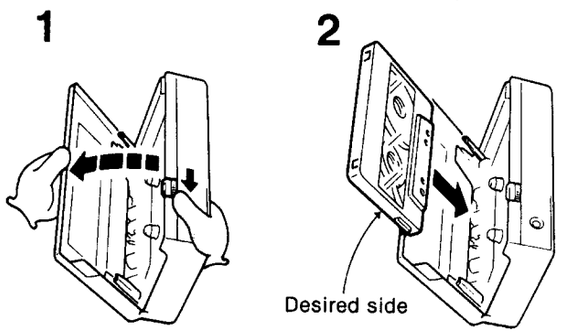
Notes

- Battery wear is greater in the recording mode than in the playback mode. Before operation, be sure to check the battery condition by reading the battery meter (depress the ● or ◄ button).
  For recording, the use of new batteries is recommended.
  For extended play or recording, use alkaline batteries.
- The unit cannot be operated on the internal batteries when either the ac power cord or car battery cord is connected to the unit.
- When the unit is not to be used for a long period of time or is to be operated extensively on other power sources, remove the batteries to avoid unit damage caused by battery leakage and corrosion.

CASSETTE INSERTION

Insert a cassette with the desired side facing out, following illustration below.

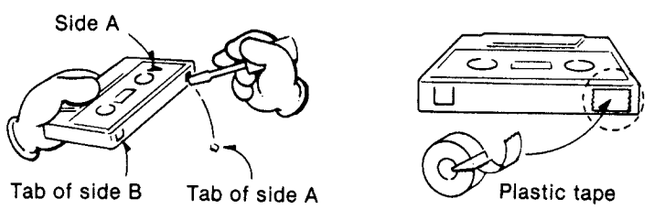
Before inserting a cassette, take up any slack in the tape.



Do not open the cassette holder while the tape is running, since this will damage the tape.

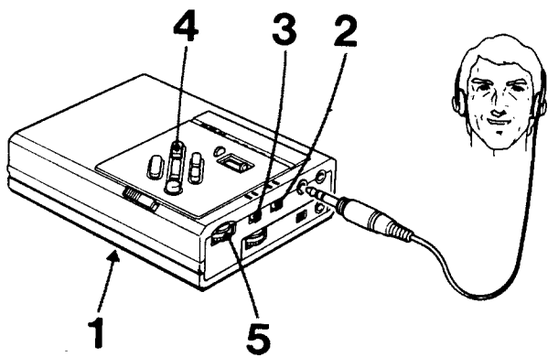
NOTES ON CASSETTES

- Break out the cassette shell tabs to prevent accidental erasure.
- To record on a cassette after the tabs have been removed, cover each slot with a piece of plastic tape.



TAPE PLAYBACK

Operate the unit following the illustration below.



1 Insert a cassette. (See page 11.)

2 Set the **TAPE** selector to the appropriate position.
NORM: TYPE I (normal) tape
CrO_2/METAL (PB): TYPE II (CrO_2), TYPE IV (metal) tape

3 For Dolby* B-type NR processed tape, set the **DOLBY NR** to ON.

4 Depress the ◀ button. Playback will begin.

5 Adjust the volume with the **PHONE VOL** control.
When using the speakers, adjust the amplifier's volume control.

For playback through external speakers, see connection diagram on page 18.

*The built-in Dolby NR system reduces tape hiss noise. Since this system operates through both record and playback modes, the DOLBY NR switch should be set to the same position as that used in recording.

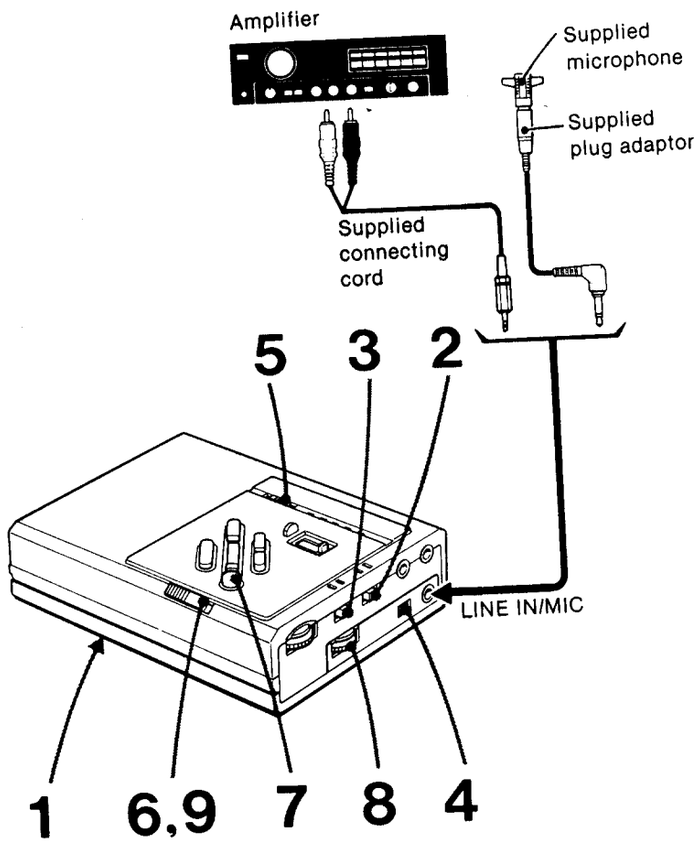
To stop playback, press the ■ button.
To advance the tape, press the ◀◀ button.
To rewind the tape, press the ▶▶ button.

In playback or recording mode, tape motion stops at the end of the tape and the locked buttons will return to the original position automatically.

In fast-forward or rewind mode, the motor stops at the end of the tape to avoid battery wear. Be sure to press the ■ button to release the ◀◀ or ▶▶ button.

RECORDING

Operate the unit following the illustration below.



1 Insert a cassette. (See page 11.)

2 Set the **TAPE** selector to the appropriate position.
NORM: TYPE I (normal) tape
CrO_2/METAL (PB): TYPE II (CrO_2) tape

3 To record using Dolby B-type NR process, set the **DOLBY NR** selector to ON.

4 Set the **LINE IN/MIC** selector to the appropriate position.
MIC: When recording from external microphone
LINE IN: When recording from another stereo system

5 Slide the **PEAK LEVEL/BATT** selector to PEAK LEVEL.

6 Slide the **PAUSE** knob in the direction of arrow.

7 Depress the ● button. The ◀ button will be depressed automatically.

8 Adjust the **REC LEVEL** control. (Refer to "Recording level adjustment" on page 17.)

9 Slide the **PAUSE** knob to its original position and the recording will begin.

On connection with a source such as a turntable or a CD player, see connection diagrams on pages 18 to 20.

To stop the recording, press the ■ button.

Monitor the recording through the headphones. Monitor volume is adjustable.

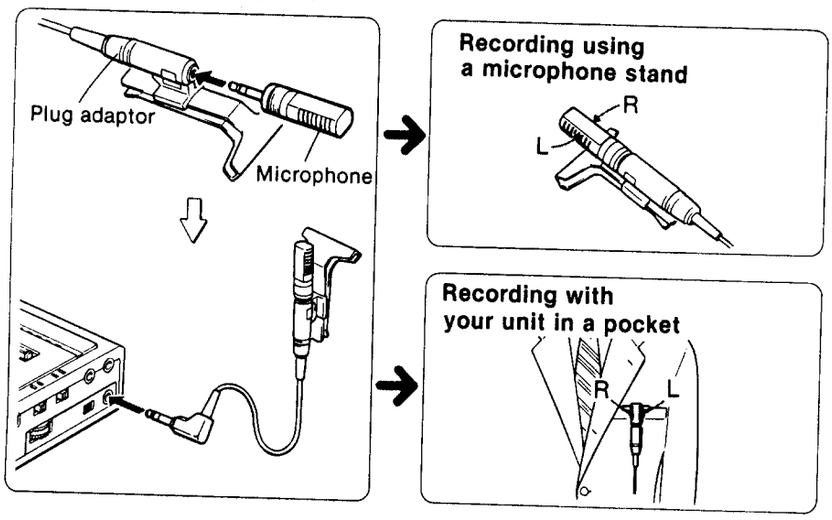
Notes

- When monitoring, a howling effect may occur if the volume of the headphones is set too high. It may also occur if you do not lower the volume before taking the headphones off.
- Avoid using TYPE IV (metal) tape when recording on this unit.

RECORDING USING THE SUPPLIED MICROPHONE

Connect the supplied microphone to the LINE IN/MIC jack of the WM-D3. The unit can supply power to the microphone (PLUG IN POWER).

See illustration below.



This microphone can be connected directly to the LINE IN/MIC jack when the sound to be recorded is relatively loud.

Notes

- Connecting the supplied microphone directly to the jack may create noise. In this case, use the supplied plug adaptor.
- To disconnect the supplied microphone from the plug adaptor, pull it out by the rubber base. Do not pull on the microphone itself.
- The supplied microphone can only be used with a cassette-corder capable of supplying power through a plug-in type microphone jack.

Recording level adjustment

Adjust the REC LEVEL control so that the level meter peaks at about + **3 dB (4 lamps glow).**

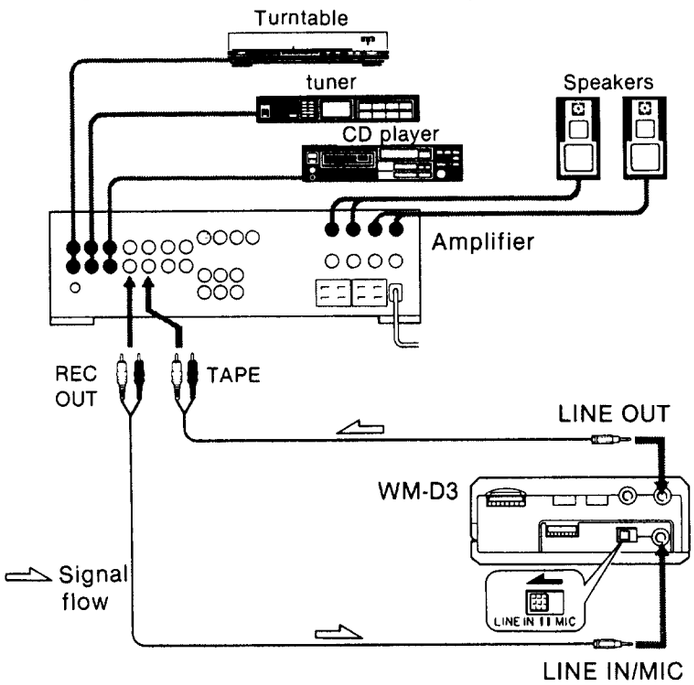
If the recording level setting is too high, the recording will be distorted and if the setting is too low, the tape will make a hissing sound.

Instant edit function

During playback, depress the ● button, and the recorder will immediately change to the recording mode. This function is convenient for editing previously recorded material.

CONNECTION

You can play back the tape through an amplifier and record from sources such as records, cassette tapes and compact discs.
Use the supplied connecting cord and the optional RK-129 connecting cord.

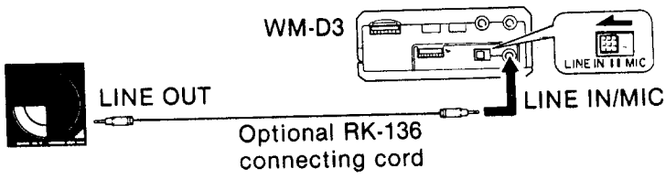


Notes

- Turn the power off before making any connection.
- Be sure to insert the plugs firmly into the jacks.
- The red plug of the connecting cord should be connected to the right (R) channel, and the other plug to the left (L) channel.

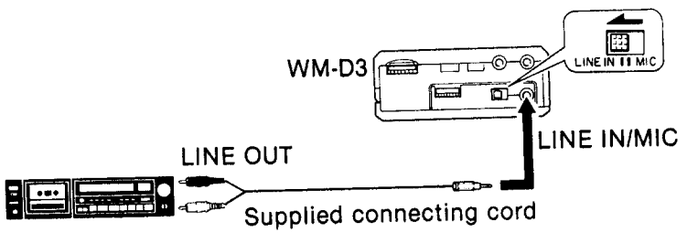
RECORDING FROM VARIOUS SOUND SOURCES

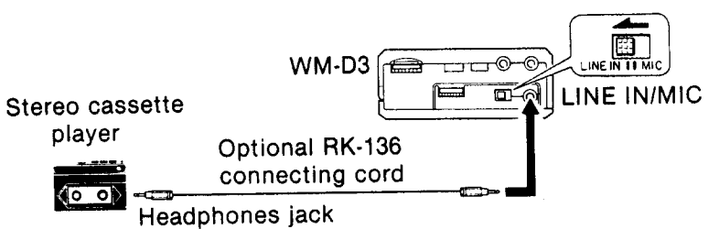
Recording from a CD compact player



Set the WM-D3 to the recording mode.

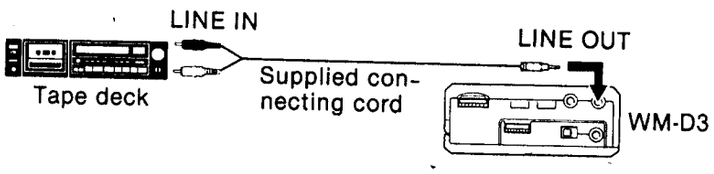
Dubbing a tape from another tape deck or stereo cassette player





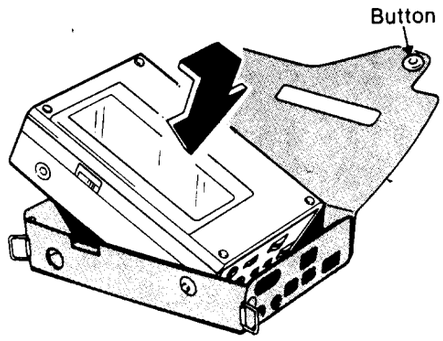
1 Set another tape deck or stereo cassette player to the playback mode and adjust it to a normal listening level.
2 Set the WM-D3 to the recording mode.

Dubbing a tape onto another cassette deck

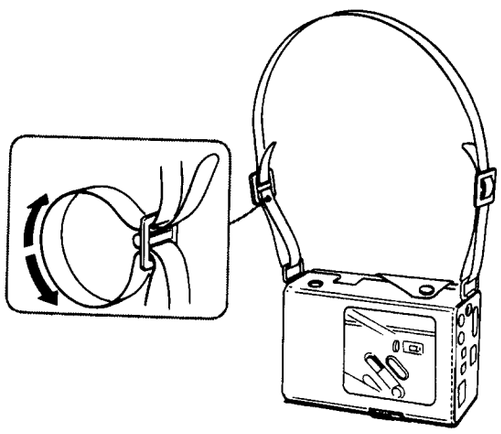


1 Set the WM-D3 to the playback mode.
2 Set the other cassette deck to the recording mode.

HOW TO USE THE CARRYING CASE AND THE STRAP



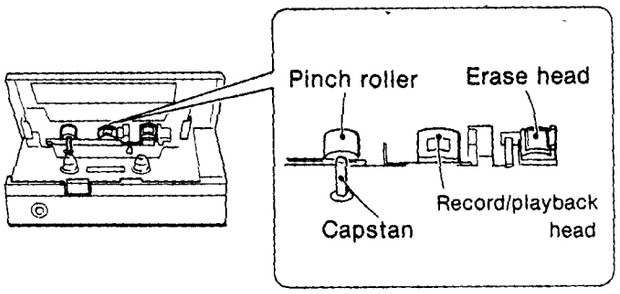
Note
Be sure to button up the carrying case after replacing the batteries and the cassette.



MAINTENANCE

CLEANING THE HEADS

Clean the heads after every 10 hours of use to enjoy optimum hi-fi stereo sound.
Moisten a cotton swab or soft cloth with denatured alcohol, and gently wipe the parts shown below.



CLEANING THE CASING

Clean the casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use solvents such as alcohol, benzine, or thinner as they may mar the finish of the casing.

CLEANING THE HEADPHONE PLUG

Keep the plug of your headphone clean to obtain the optimum sound. Wipe it with a dry, soft cloth.

SPECIFICATIONS

Recording system — 4-track, 2-channel stereo

Wow and flutter — ±0.13% (DIN)
0.08% WRMS (NAB)

Fast winding time — Approx. 2 min. with Sony Cassette HF-60

Frequency response (DOLBY NR OFF)
60–15,000 Hz ±3 dB with TYPE I (Sony HF-S) or TYPE II (Sony UCX-S) cassette
40–16,000 Hz with TYPE I (Sony HF-S) or TYPE II (Sony UCX-S) cassette

S/N (NAB, at peak level)

Type of Cassette / Dolby NR	TYPE I (Sony HF-S)	TYPE II (Sony UCX-S)
ON (B-type)	62 dB	64 dB
OFF	55 dB	57 dB

Total harmonic distorsion
1.0% with Sony UCX-S cassette

Input — Line input/microphone (stereo minijack) × 1
(the same jack)
microphone sensitivity 0.3 mV (–68 dB), plug in power type, for low impedance microphone
line input sensitivity 77.5 mV (47 kilohms)

Output — Line output jack (stereo minijack) × 1
output level 0.25 V (less than 4.7 kilohms)
headphones (stereo minijack) × 1
load impedance 8–300 ohms

Power output (DC) — 20 mW + 20 mW (at 10% harmonic distortion, load impedance 32 ohms)

Battery life (hours)

Batteries	Recording		Tape playback (power output 0.5 mW + 0.5 mW)
	TYPE I (Normal)	TYPE II (CrO_2)	
Sony SUM-3 (NS) New Super batteries	Approx. 2.5	Approx. 2	Approx. 3.5
Sony Eveready AM3 alkaline batteries	Approx. 5	Approx. 4	Approx. 7

Power requirements	3 V dc Two size AA batteries (IEC designation R6) DC IN 3 V jack can be used with the following: Sony AC-D2M ac power adaptor (optional) for use on 120 V ac, 60 Hz Sony DCC-70 car battery cord (optional) for use with 12 V car battery
Dimensions	124.2×34.4×82.3 mm (w/h/d) (5×1⅜×3¼ inches) not incl. projecting parts and controls 125.4×37.3×82.3 mm (w/h/d) (5×1½×3¼ inches) incl. projecting parts and controls
Weight	370 g (13.1 oz) incl. batteries, not incl. other accessories
Supplied accessories	Stereo headphones (open-air type) (1) Electret condenser stereo microphone (1) Plug adaptor (1) Connecting cord (1) Carrying case and carrying strap (1 set)

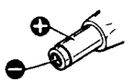
Design and specifications subject to change without notice.

OPTIONAL ACCESSORIES

AC power adaptor AC-D2M
Car battery cord DCC-70
Connecting cord RK-129 (phono plug×2 ⟷stereo miniplug), RK-136 (stereo miniplug ⟷ stereo miniplug)
Stereo headphones with microphones DR-W70C
FM stereo car transmitter TMR-FM80
Active speaker system SRS-50

Note

Use only the recommended ac power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



Polarity of the Sony plug

Continued trouble-free operation of any tape recorder is dependent on the quality of the cassettes used in conjunction with it. The use of Sony cassettes is recommended for high quality recording and trouble-free operation.

TROUBLESHOOTING GUIDE

Should any problem occur with the unit, make the following simple tests to determine whether or not servicing is required. If the problem persists after you have completed these tests, consult the nearest Sony Service Station authorized to service tape recorders (in the USA) or the nearest Sony of Canada Factory Service Station (in Canada).

The cassette cannot be inserted.

- Cassette is being inserted improperly. See "Cassette insertion" on page 11.

The ● button cannot be depressed.

- No cassette is in the cassette holder.
- The cassette inserted has had its tabs removed. Cover the slot with a small piece of plastic or vinyl tape.

The tape does not move.

- Incorrect polarity of batteries. See "Battery installation" on page 9
- The batteries are weak.
- Cassette is being inserted improperly.
- The PAUSE knob is slid towards the arrow direction (orange mark).

The sound is weak or distorted or has drop-out, or excessive noise.

- The batteries are weak.
- The heads are dirty. See "Maintenance" on page 22.

Tape playback has poor tone quality

- The batteries are weak.
- The capstan and pinch roller are dirty. See "Maintenance" on page 22.

The recording cannot be made or is unsatisfactory

- Improper connection. See "Connection" on page 18.
- The batteries are weak.
- The record/playback head is dirty. See "Maintenance" on page 22.

The erasing function is unsatisfactory

- The erase head is dirty. See "Maintenance" on page 22.